**Name of Organization:** Wisconsin Department of Natural Resources

**Type of Organization:** State

**Contact Information:** Mr. Mark Gordon

Remediation and Redevelopment Program

101 S. Webster St.

Madison WI 53707

**Phone:** (608) 266 - 7278 **Extension:**

**Fax:** (608) 267 - 7646

**E-Mail:** GORDOM@DNR.STATE.WI.US

**Project Title:** Remediation of Seep Area - Ashland/NSP Lakefront Site

**Project Category:** Contaminated Sediments

**Rank by Organization (if applicable):** 2

**Total Funding Requested ($):** 150,000 **Project Duration:** 0.5 Years

**Abstract:**

The Ashland/NSP Lakefront Site is made up of several properties within the City of Ashland, Wisconsin, and about 10 acres of sediment and surface waters in Chequamegon Bay. The properties comprising the site include, from south to north, the Northern States Power Company facility (NSP), Wisconsin Central Limited Railroad (WCL), Kreher Park - including the City of Ashland's old wastewater treatment plant- and the contaminated sediments and surface waters of Chequamegon Bay.

From the 1880's through 1947, a manufactured gas plant operated on the property now owned by NSP. A ravine ran through the property, emptying out near the former shoreline to the north. Historical maps show that the ravine was open at the start of gas production in the late 1800's, and was filled by the early 1900's. Groundwater within the filled ravine is contaminated with PAH's, VOC's and significant free product. The groundwater is moving from south to north.

Near the point where the ravine previously emptied into the bay exists a seep area where water, oils, and tars discharge to the surface. Given the close proximity of the seep to the Lake (approximately 400 feet), the potential for contaminants to reach Lake Superior is high especially during rainstorm events.

The purpose of this project would be to further investigate the seep area in order to identify the source of the contamination, and implement an interim remedy in order to prevent any further discharge.

**Geographic Areas Affected by the Project**

**States:**

- [ ] Illinois
- [ ] Indiana
- [ ] Michigan
- [ ] Minnesota
- [ ] New York
- [ ] Pennsylvania
- [x] Wisconsin
- [ ] Ohio

**Lakes:**

- [x] Superior
- [ ] Huron
- [ ] Michigan
- [ ] Erie
- [ ] Ontario
- [ ] All Lakes

**Geographic Initiatives:**

- [ ] Greater Chicago
- [ ] NE Ohio
- [ ] NW Indiana
- [ ] SE Michigan
- [ ] Lake St. Clair

**Primary Affected Area of Concern:** Not Applicable

**Other Affected Areas of Concern:**

***For Habitat Projects Only:***

**Primary Affected Biodiversity Investment Area:**

**Other Affected Biodiversity Investment Areas:**

**Problem Statement:**

Contaminants consisting of heavy metals (arsenic, cadmium, lead, and selenium), VOC's (benzene, ethylbenzene, toluene, xylene and napthalene) and numerous PAH's are present in samples taken from the seep area. The source of contaminants to the seep area as well as the exact cause have not yet been identified.

**Proposed Work Outcome:**

The purpose of this project is to further investigate the seep area in order to identify the source of the contamination, and implement an interim remedy to prevent any further discharge of contaminants via surface water runoff to Lake Superior.

The initial effort at the site will be the establishment of a construction staging area in the portion of the park just northwest of the seep area. The existing railroad tracks and associated ballast would be removed along with the fence that currently encloses the seep area, and all surrounding vegetation. A large backhoe would then be utilized to excavate the soils and other contaminated materials in the seep area. It is anticipated that an area approximately 50 feet x 50 feet and up to 5 feet deep would be removed (500 cubic yards). The material would need to be fully characterized and then properly managed as either a solid waste or hazardous waste. It is also likely that it will be necessary to remove and treat contaminated groundwater as part of the excavation process. The water will either be temporarily stored on-site in a tanker truck prior to discharge to the wastewater treatment plant or, if the volume is large enough a piping system will be constructed to allow for direct discharge to the sanitary sewer.

At the same time work is underway on the seep area, the existing surface water discharges in and around Kreher Park, including the Cities storm sewers, will be identified. Action will be undertaken to remove the storm sewers and re-route the drainage in order to relieve the hydraulic loading to the entire area of contamination and in particular to the seep area.

Once the seep is opened up, the excavation would be continued across the railroad tracks and up the bluff face in order to search for buried pipes which are serving to funnel water down the former ravine and into the area of the seep. Former engineering drawings suggest that a buried 2 inch pipe may exist in this area. It is also possible that other former piping (such as water or sewer pipes) may also exist in this area that is serving as a conduit for water. If piping or an existing contaminant source is discovered during the excavation process, it will be removed and the area backfilled with low permeability material. It is likely that some contaminated materials will be encountered during excavation of the old filled ravine area and these materials will need to be removed, characterized and properly managed. If old pipes are discovered during the excavation, several sections may be retained for further analysis to determine the type of waste or materials that were previously discharged through the pipe.

Once the source of water and/or contaminants is removed, the seep area will be backfilled with clean materials, and the railroad track restored such that train traffic can continue on a routine basis. A final remedy for this area will be addressed during the remedy evaluation and selection process.

| **Project Milestones:** | **Dates:** |
|---|---|
| Initiate discussions on project scope | 09/2000 |
| Establish construction staging area | 11/2000 |
| Remove RR tracks, vegetation, fence, etc | 11/2000 |
| Remove contaminated soil from seep area | 11/2000 |
| Excavate soil from the bluff area | 12/2000 |
| Backfill excavation and replace fence | 12/2000 |
| Identify surface water drainage patterns | 12/2001 |
| Re-route drainage around contamination | 03/2001 |

☐ Project Addresses Environmental Justice

**If So, Description of How:**

☒ Project Addresses Education/Outreach

**If So, Description of How:**

The Wisconsin Department of Natural Resources is already working with the local League of Women Voters and the Sigurd Olson Institute to provide education and outreach to interested community members. Numerous public meetings and information sessions have occurred on the investigation and remediation of this site. More recently, the League of Women Voters entered into an agreement with TOSC (Technical Outreach for Communities) to provide addtional public education and outreach.

**Project Budget:**

| | Federal Share Requested ($) | Applicant's Share ($) |
|---|---|---|
| **Personnel:** | 0 | 5,000 |
| **Fringe:** | 0 | 2,000 |
| **Travel:** | 0 | 2,000 |
| **Equipment:** | 0 | 0 |
| **Supplies:** | 10,000 | 0 |
| **Contracts:** | 50,000 | 3,000 |
| **Construction:** | 75,000 | 0 |
| **Other:** | 15,000 | 2,000 |
| **Total Direct Costs:** | 150,000 | 14,000 |
| **Indirect Costs:** | 0 | 1,000 |
| **Total:** | 150,000 | 15,000 |
| **Projected Income:** | 0 | 0 |

**Funding by Other Organizations (Names, Amounts, Description of Commitments):**

In addition to the Wisconsin Department of Natural Resources, there are several other interested parties that may be willing to contribute time and/or resources to this effort. This includes the City of Ashland, Wisconsin Central Limited Railroad, and Northern States Power. It is our intent to begin discussions shortly with these parties to determine the level of contribution they would be willing to make. We are hopefully that more detailed information will be available to include with the final application.

**Description of Collaboration/Community Based Support:**

See discussion under Tab (8).